

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 8 November 2013

Wetlands and tributaries on the Gateway Pacific Terminal main project site and abutting Parcel 15 and the Strait of Georgia

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Seattle District – Pacific International Terminals, NWS-2008-260-NO

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: WA

County/parish/borough: Whatcom

City: Ferndale

Center coordinates of site (lat/long in degree decimal format): Lat: 48.8704° Long: -122.73657°

Universal Transverse Mercator: Zone 10 N E

Name of nearest waterbody: Strait of Georgia

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Strait of Georgia

Name of watershed or Hydrologic Unit Code (HUC): 17110002, Strait of Georgia

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: 22 October 2013

☒ Field Determination. Date(s): 23 & 24 March 2008, 6 November 2008, 6 February 2012, 1 November 2012, 13 May 2013, 28 May 2013, and 6 June 2013.

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** “navigable waters of the U.S.” within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

☒ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** “waters of the U.S.” within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

☒ TNWs, including territorial seas

☒ Wetlands adjacent to TNWs

☒ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs

☒ Non-RPWs that flow directly or indirectly into TNWs

☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☒ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 20.62 linear miles: 3' average width (ft) and/or 7.48 acres.

Traditional Navigable Waters: 20 acres

Wetlands: 608.36 acres

c. Limits (boundaries) of jurisdiction based on:

Wetlands - 1987 Delineation Manual

Elevation of established OHWM (if known): Varies.

Elevation of established MHHW (if known): 9.08' (MLLW datum).

Elevation of established MHW (if known): 8.21' (MLLW datum).

2. Non-regulated waters/wetlands (check if applicable):³

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least “seasonally” (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: Strait of Georgia

Summarize rationale supporting determination: The Strait of Georgia is a tidal waterbody used for interstate and foreign commerce.

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”: According to information in the document titled, “*Wetland Determination and Delineation, Gateway Pacific Terminal Property, Whatcom County, Washington*,” dated 22 February 2008 and the addendum dated 12 September 2012 and direct observation during site visits, Wetlands 10A, 10B, 10C, 10D, 11B, 12, 13F, and 13G are contiguous to or bordering the Strait of Georgia. These wetlands are situated in fields sloping toward, and in close proximity to, the Strait of Georgia.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under Rapanos have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

Main Site - Streams 1, 1A, 2, 3, 4, 5, 6, 7 and Drainages 1, 3, 4, 7, 8, 9 are seasonal RPWs; Drainages 2, 5, and 6 are non-RPWs
Parcel 15 (P15) Site - Streams 2, 2A, 2B, and Drainages 3, 11, 12, 13 are seasonal RPWs; Drainage 10, Ditch SW1, and Ditch SW2 are non-RPW's.

(i) General Area Conditions:

Watershed size: 955 **square miles**

Drainage area: 1,800 **acres**

Average annual rainfall: 36.00 inches

Average annual snowfall: 8 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☒ Main site Stream 1 and P15 Drainage 11 flow directly into TNW.

☒ Main site Streams 1A, 2, 4, 5, 6 and Drainages 4, 5, 7, 8, 9 and P15 Stream 2 flow through **1** tributary before entering a TNW.

☒ Main site Stream 7, 3 and Drainage 1 and P15 Streams 2A and 2B flow through **2** tributary before entering TNW.

☒ Main site Drainages 2 and 6 and P15 Drainages 3, 10, 12, and 13, and Ditch SW1, and Ditch SW2 flow through **3** tributary before entering a TNW.

Project waters are **1-2** river miles from TNW.

Project waters are **1 (or less)** river miles from RPW.

Project waters are **1-2** aerial (straight) miles from TNW.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW⁵:

Main Site:

Stream 1 flows into the Strait of Georgia.
Stream 1A flows into Stream 1, which flows into the Strait of Georgia.
Stream 2 flows into Wetland 12, which is adjacent to the Strait of Georgia.
Stream 3 flows offsite to the west and into an unnamed tributary of the Strait of Georgia
Stream 4 flows into Stream 1, which flows into the Strait of Georgia.
Stream 5 flows into Stream 1, which flows into the Strait of Georgia.
Stream 6 flows into Stream 1, which flows into the Strait of Georgia.
Stream 7 flows into Stream 4, which flows into Stream 1, a tributary of the Strait of Georgia.
Drainage 1 flows into Stream 6 flows into Stream 1, which flows into the Strait of Georgia.
Drainage 2 flows into Wetland 5B which abuts Stream 5, a tributary of Stream 1, which flows into the Strait of Georgia.
Drainage 3 flows into Drainage 4, a tributary of Stream 1, which flows into the Strait of Georgia.
Drainage 4 flows into Stream 1, which flows into the Strait of Georgia.
Drainage 5 flows into Stream 1, which flows into the Strait of Georgia.
Drainage 6 flows into Drainage 1, a tributary of Stream 6 flows into Stream 1, which flows into the Strait of Georgia.
Drainage 7 flows into Stream 1, which flows into the Strait of Georgia.
Drainage 8 flows into Stream 1, which flows into the Strait of Georgia.
Drainage 9 flows into Stream 1, which flows into the Strait of Georgia.

Parcel 15:

Stream 2 – is an extension of Stream 2 described above.
Stream 2A – flows into Stream 2, which flows into Wetland 12, which is adjacent to the Strait of Georgia
Stream 2B - flows into Stream 2, which flows into Wetland 12, which is adjacent to the Strait of Georgia
Drainage 3 - flows into Stream 1, which flows into the Strait of Georgia
Drainage 10 - flows into Stream 2, which flows into Wetland 12, which is adjacent to the Strait of Georgia
Drainage 11 - flows into the Strait of Georgia
Drainage 12 – flows into Drainage 3, which flows into Stream 1, which flows into the Strait of Georgia
Drainage 13 - flows into Drainage 3, which flows into Stream 1, which flows into the Strait of Georgia
Ditch SW1 – flows into Wetland 4 then into Stream 2A.
Ditch SW2 – flows into Wetland SW, then through Wetland 7A and into Stream 2A.

Tributary stream order, if known:

1st for Main Site Streams 3, 5, 6, 7 and Drainages 2, 3, 4, 5, 6, 7, 8, 9 and P15 Streams 2A, 2B, Drainages 3, 10,
11, 12, 13, and Ditches SW1 and SW2.

2nd for Main Site Streams 1, 2, 4 and Drainage 1 and P15 Stream 2.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural – Main Site Streams 1, 1A, and 2; P15 Stream 2, 2A.
☒ Artificial (man-made). Explain: Main Site Streams 2, 3, 4, 5, 6, 7 and Drainages 1-9 and P15
Drainages 3, 10-13 and Ditches SW1 and SW2 are man-made ditches excavated in upland and
wetland soils. Artificial features have replaced historic natural drainages in the project vicinity.
☒ Manipulated (man-altered). Explain: P15 Stream 2B has been partially channelized (upstream
end).

Tributary properties with respect to top of bank (estimate):

Average width: 3.5 feet

Average depth: 2 feet

Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

<input checked="" type="checkbox"/> Silts	<input checked="" type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input type="checkbox"/> Cobbles	<input checked="" type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input checked="" type="checkbox"/> Vegetation. Grass species, 75% cover:	
<input type="checkbox"/> Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stable.

Presence of run/riffle/pool complexes. Explain: None.

Tributary geometry: **Meandering** for Streams 1 and 2; : **Relatively straight** for remaining Streams and Drainages

Tributary gradient (approximate average slope): 3 %

(c) Flow:

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributaries provide:

Main Site Streams 1, 2, 3, 4, 5, 6, 7 and Drainages 1, 3, 4, 7, 8, 9 and P15 Streams 2, 2A, 2B and Drainages 3, 11, 12, and 13: **Seasonal flow**

Main Site Drainages 2, 5, 6 and P15 Drainage 10 and Ditches SW1 and SW2: **Intermittent but not seasonal flow**

Estimate average number of flow events in review area/year:

Main Site Streams 1, 1A, 2, 3, 4, 5, 6, 7 and Drainages 1, 3, 4, 7, 8, 9 and P15 Streams 2, 2A, 2B and Drainages 3, 11, 12, and 13: **2-5**

Main Site Drainages 2, 5, 6 and P15 Drainage 10 and Ditches SW1 and SW2: **6-10**

Describe flow regime:

Main Site Streams 1, 1A, 2, 3, 4, 5, 6, 7 and Drainages 1, 3, 4, 7, 8, 9 and P15 Streams 2, 2A, 2B, and Drainages 3, 11, 12, and 13: Continuous flow for approximately 3 - 5 months with additional periodic flow in response to precipitation. Main Site Drainages 1, 3, 4, 7, 8, 9 and P15 Drainage 10 and Ditches SW1 and SW2: Continuous flow during extreme wet season (December-January) with additional periodic flow in response to precipitation

Other information on duration and volume: .

Surface flow is: **Pick List.**

Characteristics: Surface flows contained within stream and ditch channels.

Subsurface flow: **Unknown**. Explain findings: .

☐ Dye (or other) test performed: .

Tributaries have (check all that apply):

☒ Bed and banks

☒ OHWM⁶ (check all indicators that apply):

☒ clear, natural line impressed on the bank

☐ changes in the character of soil

☒ shelving

☒ vegetation matted down, bent, or absent

☐ leaf litter disturbed or washed away

☒ sediment deposition

☐ water staining

☐ other (list):

☒ the presence of litter and debris

☒ destruction of terrestrial vegetation

☐ the presence of wrack line

☐ sediment sorting

☒ scour

☐ multiple observed or predicted flow events

☐ abrupt change in plant community

☐ Discontinuous OHWM.⁷ Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:

☐ oil or scum line along shore objects

☐ fine shell or debris deposits (foreshore)

☐ physical markings/characteristics

☐ tidal gauges

☐ other (list):

☐ Mean High Water Mark indicated by:

☐ survey to available datum;

☐ physical markings;

☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributaries (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Water is usually clear and water quality is fair. Tributaries convey water from natural sources and runoff from agricultural/residential/industrial lands and roads.

Identify specific pollutants, if known: herbicides/fertilizers and petrochemicals (oil from roads).

(iv) Biological Characteristics. Channel supports (check all that apply):

☒ Riparian corridor. Characteristics (type, average width): Forested corridor for Main Site Streams 1, 1A, 2 and P15 Streams 2, 2A, 2B, ; Corridor for remaining Streams and Drainages limited by development (roads, pastures, etc.); primarily herbaceous with shrub cover.

☒ Wetland fringe. Characteristics: wetland fringes of tributaries are primarily PEM dominated by grass species. PSS/PFO in scattered spots

☒ Habitat for:

☐ Federally Listed species. Explain findings: .

☒ Fish/spawn areas. Explain findings: Per WDFW data, Stream 1 may be utilized by Pacific salmon (coho). Pacific salmon habitat is designated as Essential Fisheries Habitat under the Magnuson-Stevens Fishery Conservation and Management Act

☐ Other environmentally-sensitive species. Explain findings: .

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

☒ Aquatic/wildlife diversity. Explain findings: Diversity of aquatic species in Stream 1 rated moderate by WA Department of Fish & Wildlife..

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

Main Site Wetlands 4D, 4E, 4F, 7B, 9C, 13C, 13D, and Parcel 15 Wetlands 2, 4, 5, 8, 9, 13-16, 18-20, 24, and SW are adjacent to seasonal RPWs

Main Site Wetlands 4B and 4C are adjacent to non-RPWs

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: 22 wetlands totaling 23.16 acres

Wetland type. Explain: depressional PEM and depressional and slope PSS/PFO

Wetland quality. Explain: P15 Wetlands 10A and 11 are rated Category II; all other Wetlands rated as Category III and IV per WA State wetland Rating System (based on a scale of I to IV, I being the highest functioning). Wetlands were previously used for agriculture or disturbed by logging.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain: Water flows from wetlands to tributaries ditches during heavy rain events.

Surface flow is: **Pick List**

Characteristics: Some wetlands adjacent to ditches; for others, accumulated water flows from deeper areas of wetlands to drainage ditches and streams via discreet flow paths.

Subsurface flow: **Unknown**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☒ Not directly abutting

☒ Discrete wetland hydrologic connection. Explain: accumulated water flows from deeper areas of wetlands to drainage ditches via discreet flow paths.

☒ Ecological connection. Explain: Some wetlands connected to drainages by continuum of hydric soils and by downslope flows across wetland and upland areas.

☒ Separated by berm/barrier. Explain: Some wetlands separated from ditch by fill from human activities (ditch cleaning, upland site improvements, etc.). Wetlands meet definition of "adjacent" found at 33 CFR 238.3(c).

(d) Proximity (Relationship) to TNW

Project wetlands are **1-2** river miles from TNW.

Project waters are **1 (or less)** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **100 - 500-year** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water is clear with some organic material load.

Identify specific pollutants, if known: pesticides, fertilizers.

(iii) Biological Characteristics. Wetland supports (check all that apply):

☒ Riparian buffer. Characteristics (type, average width): Widths vary, herbaceous and shrub/forested cover

☒ Vegetation type/percent cover. Explain: PEM - grass species 95%; shrub species 5%.

PSS/PFO - Shrub species 65%, tree species 15%, herbaceous 20%

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributaries (if any)

All wetland(s) being considered in the cumulative analysis: **30 (or more)**

547.29 acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Main Site:

<u>Wetland</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Wetland</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
1	Y	44.20	9C	N	0.11
2	Y	53.20	10A	Y	5.20
3	Y	150.70	10B	Y	1.20
4A	Y	26.60	11A	Y	3.50
4B	Y	4.40	11B	Y	0.10
4C	Y	0.20	12	Y	11.20
5A	Y	109.20	13A	Y	0.60
5B	Y	0.10	13C	N	0.10
6	Y	36.90	13D	N	0.40
7A	Y	40.10	13E	Y	0.10
8A	Y	24.80	13F	Y	0.60
8B	Y	0.10	10C	Y	0.20
9A	Y	28.20	10D	Y	0.80
4D	N	1.30	14	Y	0.70
4F	N	1.10	4E	N	0.20
7B	N	0.60			

Parcel 15 Site:

<u>Wetland</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Wetland</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
1	Y	10.13	2	N	0.10
3	Y	13.78	4	N	0.17
6	Y	1.96	5	N	5.21
7A	Y	0.71	8	N	0.09
10A	Y	0.25	9	N	0.31
10B	Y	0.68	13	N	0.29
10C	Y	0.08	14	N	0.05
10D	Y	3.77	15	N	0.14
10E	Y	0.61	16	N	0.13
11	Y	5.23	18	N	0.66
12	Y	0.97	19	N	1.43
17	Y	0.13	20	N	5.52
21	Y	3.42	24	N	0.09
22	Y	4.58	23	Y	0.04
SW	N	0.56			

Summarize overall biological, chemical and physical functions being performed: See Section C below.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

Subject wetlands and non-RPWs have a significant nexus to downstream TNW.

Subject reaches includes Main Site Drainages 2, 5, 6, Parcel 15 Drainage 10 and associated wetlands. Drainages 2, 5, and 6 connect to Stream 1 and convey water from site wetlands, uplands, and road runoff. Drainage 10 connects to Stream 2 and conveys water from site wetlands, uplands, and road runoff. Watershed has been moderately developed for agricultural, industrial, and residential uses. Essential Fish Habitat for Pacific salmon (designated under the Magnuson-Stevens Fishery Conservation and Management Act) extends from the TNW (Strait of Georgia) upstream into Stream 1. Fish species listed under the Endangered Species Act utilize the waters of the Strait of Georgia; designated critical habitat for Chinook salmon, bull trout, and killer whales exists in the project vicinity (Strait of Georgia).

The tributaries have the capacity to carry pollutants (herbicides and pesticides from agriculture, oil and grease from road runoff) or flood waters to a TNW. The lengthy vegetated tributaries have the capacity to capture pollutants (herbicides and pesticides from agriculture, oil and grease from road runoff) to reduce the amount of pollutants, sediments or flood waters from reaching a TNW and provide detention for water and reduces velocity of water entering the TNW.

Wetland functions are moderate to high wildlife habitat and habitat diversity, moderate to high enhanced food web support, moderate floodwater storage/attenuation, and moderate sediment input reduction and toxin removal.

The tributaries in combination with their adjacent and abutting wetlands provide downstream habitat and lifecycle support functions for fish. The wetlands create and transfer organic carbon which supports the downstream food web of the TNW. Wetlands improve downstream water quality in TNW through sediment and toxin interception. The lengthy vegetated tributaries with wetland complexes have the capacity to capture pollutants (agricultural herbicides/pesticides, road runoff, and sediments) to reduce the amount of pollutants, sediments and flood waters from reaching the TNW. Wetlands attenuates downstream flooding by reducing peak flow in the watershed during major storm events and attenuates erosion by detaining high flows during storms and reduce the duration of erosive flows, thus decreasing downstream erosion in streams.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

Subject wetlands and RPWs have a significant nexus to downstream TNW.

Subject reaches includes Streams 1 and 2, their tributaries, and their associated wetlands. Watershed has been moderately developed for agricultural, industrial, and residential uses. Essential Fish Habitat for Pacific salmon (designated under the Magnuson-Stevens Fishery Conservation and Management Act) extends from the TNW (Strait of Georgia) upstream into Stream 1. Fish species listed under the Endangered Species Act utilize the waters of the Strait of Georgia; designated critical habitat for Chinook salmon, bull trout, and killer whales exists in the project vicinity (Strait of Georgia).

Wetland functions are moderate to high wildlife habitat and habitat diversity, moderate to high enhanced food web support, moderate floodwater storage/attenuation, and moderate sediment input reduction and toxin removal.

The tributaries in combination with their adjacent wetlands provide downstream habitat and lifecycle support functions for fish. The wetlands create and transfer organic carbon which supports the downstream food web of the TNW. Wetlands improve downstream water quality in TNW through sediment and toxin interception. The lengthy vegetated tributaries with wetland complexes have the capacity to capture pollutants (agricultural herbicides/pesticides, road runoff, and sediments) to reduce the amount of pollutants, sediments and flood waters from reaching the TNW. Wetlands attenuates downstream flooding by reducing peak flow in the watershed during major storm events and attenuates erosion by detaining high flows during storms and reduce the duration of erosive flows, thus decreasing downstream erosion in streams.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
- ☒ TNWs: linear feet width (ft), Or, 20.2 acres.
 - ☒ Wetlands adjacent to TNWs: 19.70 acres (Wetlands 10A, 10B, 10C, 10D, 11B, 12, 13F, 13G).
2. **RPWs that flow directly or indirectly into TNWs.**
- ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide rationale indicating that tributary flows seasonally: .
 - ☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Per information provided by the consultant, all site streams and drainages with the exception of Drainages 2, 5, 6, and 10 have a continuous flow for at least 3 months out of the year.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☒ Tributary waters: 17.97 linear miles: 3' average width (ft) and/or 6.53 acres.
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- ☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply): For Drainages 2, 5, 6, 10 and Ditches SW1 and SW2

- ☒ Tributary waters: 2.65 linear miles: 3' average width (ft) and/or 0.95 acres.
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☒ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above.

- ☒ **Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:** The documents titled “*Wetland Determination and Delineation, Gateway Pacific Terminal Property, Whatcom County, Washington*,” dated 22 February 2008 and “*Wetland Identification and Delineation, Parcel 14 at Gateway Pacific Terminal Property, Whatcom County, Washington*,” dated 26 September 2011, “*Revised Wetland Areas Pacific International Terminals Property*,” dated 12 November 2012, and “*Wetland Determination and Delineation, Parcel 15 Property*,” revision dated August 2013, identify the boundaries for the wetland listed below as extending to the edge of the unnamed tributaries with no intervening uplands, berms, etc. Site visits to the subject property confirmed the connections.

Provide acreage estimates for jurisdictional wetlands in the review area: 565.77 acres (Main Site Wetlands 1, 2, 3, 4A, 5A, 5B, 6, 7A, 8A, 8B, 9A, 11A, 13A, 13E, 14 and Parcel 15 Wetlands 1, 3, 6, 7A, 7B, 10A, 10B, 10C, 10D, 10E, 11, 12, 17, 21, 22, and 23).

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- ☒ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: 18.56 acres (Main Site Wetlands 4D, 4E, 4F, 7B, 9C, 13C, 13D, and Parcel 15 Wetlands 2, 4, 5, 8, 9, 13, 14, 15, 16, 18, 19, 20, 24, and SW).

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- ☒ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: 4.60 acres (Main Site Wetlands 4B and 4C).

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from “waters of the U.S.,” or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:¹⁰

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS:

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.**

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Wetland delineation report dated 22 February 2008 and addenda dated 30 July 2008, 12 September 2012, and 12 November 2012; wetland delineation report (Parcel 14) dated 26 September 2011; wetland delineation report (Parcel 15) dated August 2013.
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - ☒ Office concurs with data sheets/delineation report.
 - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
 - ☐ USGS NHD data.
 - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: 7.5 minute Lummi Bay and Blaine Quads
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
- ☐ National wetlands inventory map(s). Cite name: .
- ☒ State/Local wetland inventory map(s): WA State Department of Ecology, 2001
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): WA State Department of Ecology, 2005, Google earth 2011.
or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD:

1. **Site Description and Significant Resources in the area:** The site consists of 1,428 acres of mostly undeveloped industrial zoned land in the vicinity of Cherry Point in Whatcom County. The property includes the main site (with Parcel 14 added) and the recently added Parcel 15 property on the southeast part of the site. The site is bounded by an oil refinery to the north, undeveloped and agricultural lands to the east and west, and by the Strait of Georgia to the south. A portion of the site has been historically used for agricultural activities (pasturage); the project vicinity has been moderately developed for agricultural, industrial, and residential uses. The terrain throughout the study area is characterized as generally flat to gently rolling slopes. Elevations range from sea level to 210 feet. The highest portion of the study area occurs nearest the eastern property boundary, with site elevation gradually decreasing to the west and to the south. Moderate slopes and steep bluffs border the westernmost stretch of shoreline. A steep ravine lies in the south central portion of the study area. Property generally trends from north and northeast to the south. The site contains five natural streams (Main Site Streams 1, 1A, 2, and Parcel 15 Streams 2 and 2A) and 20 manipulated drainages (ditches), all eventually flowing into the Strait of Georgia. Artificial features have replaced historic natural drainages in the project vicinity. A wetland delineation of the site identified 46 wetlands. Wetlands are PEM (wet pasture), PSS, and PFO systems.
2. **Project Purpose and Description:** Fill/grade associated with construction of industrial facilities.
3. **Physical / Chemical Characteristics:**
 - a. Streamflow c.f.s.: NA
 - b. Salinity: NA
 - c. Soils:
 - Birchbay silt loam - 0-3% slopes and 3-8% slopes (non-hydric with hydric inclusions)
 - Whitehorn silt loam - 0-2% slopes (hydric)
 - Kickerville silt loam - 3-8% slopes (non-hydric with hydric inclusions)
 - Neptune very gravelly sandy loam - 0-3% slopes (non-hydric)
 - Whatcom silt loam - 30-60% slopes (non-hydric with hydric inclusions)

Wetlands

 - 10 YR 2/1 silt loam
 - 10YR 2/2 sandy loam with 7.5YR 5/6 redox features
 - 10YR 3/2 sand loam with 5YR 4/4 redox features

Uplands

 - 10YR 3/3 silt loam
 - 10YR 3/3 sandy loam
 - d. Hydrology: Saturation at shallow depth and signs of inundation at center of forested wetlands and PEM wetlands with deeper depressions at the center.
4. **Biological Characteristics:**

- a. Percentage of dominant vegetation FAC or wetter: 85% in wetlands
- b. Vegetation species list:
 - PEM (Meadow) Wetlands
 - Bentgrass (*Agrostis* sp) FACW-FACU
 - Meadow foxtail (*Alopecurus pratensis*) FACW
 - Sweet vernal grass (*Anthoxanthum odoratum*) FACU
 - Tall buttercup (*Ranunculus acris*) FACW
 - PSS Wetlands
 - Nootka rose (*Rosa nutkana*) FAC
 - Douglas spirea (*Spiraea douglasii*) FACW
 - Himalayan blackberry (*Rubus armeniacus*) FACU
 - Salmonberry (*Rubus spectabilis*) FAC
 - Lady fern (*Athyrium filix-femina*) FACW
 - Slough sedge (*Carex obnupta*) OBL
 - Pacific silverweed (*Potentilla pacifica*) OBL
 - Stinging nettle (*Urtica dioica*) FAC+
 - PFO Wetlands
 - Red alder (*Alnus rubra*) FAC
 - Black cottonwood (*Populus trichocarpa*) FAC
 - Western red cedar (*Thuja plicata*) FAC
 - Twinberry (*Lonicera involucrate*) FAC
 - Salmonberry (*Rubus spectabilis*) FAC
 - Red-osier dogwood (*Cornus stolonifera*) FACW
 - Pacific willow (*Salix lucida*) FACW+
 - Sitka willow (*Salix sitchensis*) FACW
- c. Fauna: birds (including turkey), coyote, small mammal presence.
- d. NWI Classification, associations/communities: PEM, PSS, & PFO

5. Lateral Extent of Jurisdiction:

- a. OHW, MHHW, MHW and datum: identified OHW for drainage ditches/streams
- b. Acreage of wetlands to be impacted: unknown
- c. Total acreage of wetlands/waters on site: 608.36 acres

- 6. Additional information:** Corps staff visited the site on 9 occasions. Extensive sampling verified the accuracy of the methods used by the consultants to establish wetland boundaries. After the 23 & 24 March 2008 visits, the consultants were asked to re-sample and redefine the boundaries of Wetlands 2 (SE portion) and 9 (between 9A and 9B, NE, and SE portions). Consultants provided a revised delineation on 30 July 2008. The area between wetlands 9A and 9B was determined to be a wetland, making 9A and 9B contiguous. Additional areas of wetlands were identified in the northeast corner of wetland 9A and on the east boundary of wetland 2. Corps staff verified the revisions during a site visit on 6 November 2008. The applicants added an additional area to the project site (Parcel 14) and provided a delineation that showed that wetlands on this parcel were a continuation of Wetland 5A and that these wetlands extended to the area previously identified as 5C. The wetland site map was revised and the Corps verified the boundaries on 6 February 2012 site visit. At that time, the consultants were asked to re-sample and redefine the boundaries of Wetlands 10A and 10B and sample two additional areas for the presence of wetlands. Consultants provided a revised delineation on 13 September 2012. The boundaries of wetlands 10A and 10B were adjusted leading to an increase in acreage. Additional areas of wetlands were identified east of Wetland 10A. These have been added to the site wetland map and labeled 10C and 10D. Corps staff verified the revisions during a site visit on 1 November 2012. During the Parcel 15 site visit in May and June of 2013, the Corps requested the additional sampling be performed to adjust wetland boundaries and identified additional areas suspected of being wetlands. The applicant provided a revised delineation that suitably addressed the Corps' concerns about identified boundaries and added additional wetland area.

Wetland SW (Pond) and Ditches SW1 and SW2 - In the northwest corner of Parcel 15, constructed stormwater facilities associated with the abandoned industrial development were delineated. Features currently remaining from the abandoned development include two large concrete pads (approximately 54,600 square feet each), stormwater ditches and underground drainage systems, gravel roads, and a stormwater retention pond. These features were installed in 1992-1993 under an approved permit from Whatcom County. The stormwater facilities include a series of 3 to 4 foot-wide linear, partially gravel-lined ditches that convey stormwater through steel culverts and inlets to an interconnected, underground drainage pipe system. Ditch SW1 (830 feet long) is situated along the NW and SE sides of concrete pad #1 that conveys water from the previously developed area to Wetland 4 and Ditch SW2 (430 feet long) is along the NW and SE sides of concrete pad #2 that conveys water from disturbed area to Wetland 7B. Both ditches exhibit bed, bank, and ordinary high water (OHW) features. These ditches constructed in uplands at the same time as the stormwater pond were designed to be an integral part of the stormwater system. The outlet from the underground pipe system discharges to an approximately 0.56-acre stormwater retention pond. The water level in the stormwater pond is regulated by a stand pipe connected to an outlet, which drains to Wetland 7B.

7. **Conclusions:** The following aquatic features are jurisdictional navigable waters, tributaries and wetlands.

The Strait of Georgia is a navigable Section 10 waterway used for interstate and foreign commerce.

Main Site Streams 1, 1A, 2, 3, 4, 5, 6, 7 and Drainages 1, 3, 4, 7, 8, 9 and Parcel 15 Streams 2, 2A, 2B, and Drainages 3, 11, 12, and 13 are seasonal RPWs that are tributary to the Strait of Georgia, a tidal waterbody used for interstate and foreign commerce.

Drainages 2, 5, 6, and 10 are non-RPWs that have a significant nexus to the downstream waters of the Strait of Georgia.

Wetlands 10A, 10B, 10C, 10D, 11B, 12, 13F, and 13G are adjacent to the Strait of Georgia, a tidal waterbody used for interstate and foreign commerce.

Main Site Wetlands 1, 2, 3, 4A, 5A, 5B, 6, 7A, 8A, 8B, 9A, 11A, 13A, 13E, 14 and Parcel 15 Wetlands 1, 3, 6, 7A, 7B, 10A, 10B, 10C, 10D, 10E, 11, 12, 17, 21, 22, and 23 abut seasonal RPWs that are tributary to the Strait of Georgia

Main Site Wetlands 4D, 4E, 4F, 7B, 9C, 13C, 13D, and Parcel 15 Wetlands 2, 4, 5, 8, 9, 13, 14, 15, 16, 18, 19, 20, 24 are adjacent to seasonal RPWs and, in combination with their associated tributaries, have a significant nexus to the downstream waters of the Strait of Georgia.

Wetlands, 4B and 4C are adjacent to non-RPWs and, in combination with their associated tributaries, have a significant nexus to the downstream waters of the Strait of Georgia.

Wetland SW and Ditches SW1 and SW2 - While the ditches and the retention pond were man-made stormwater facilities, the project they were intended to serve was never completed. The stormwater system does not currently provide water quality treatment functions and is not used to treat municipal or industrial effluent. Therefore, per Seattle District policy, the pond is not considered a “waste treatment systems” as addressed under 33 CFR 328.3(a)(8). It appears that the stormwater pond and ditches may have been created in dry land. However, the pond and Ditch SW2 have a surface hydrological connection via outlet pipe and surface drainage through wetland 7B to a downstream water of the U.S. (Stream 2A) and Ditch SW1 has a hydrological connection via outlet pipe and surface drainage through wetland 4 to a downstream water of the U.S. (Stream 2A). These features have the potential to convey pollutants to downstream waters of the U. S. In accordance with Seattle District policy based on the 9th Circuit Court’s *Headwaters, Inc. v. Talent Irrigation District* decision, the stormwater pond and ditches conveying water to it are considered tributaries and are jurisdictional waters of the U. S. Wetland SW and Ditch SW1 and SW 2 have a significant nexus to the downstream waters of the Strait of Georgia.

8. **Attachments:** Jurisdictional map, wetland boundary map, aerial photos, WA state wetland inventory, topographic map, and site photos.